24203

S/143/61/000/006/003/003
D253/D301

9,6000

AUTHOR: Tyushkevich, N.I., Engineer

TITLE: Sensing elements with a current generator supply in automation

PERIODICAL: Energetika, no. 6, 1961, 50 - 57

TEXT: This paper describes the basic diagrams of the sensing elements with semiconductor transmitters-modulators fed from the current generators. In the case of low voltage transmitters a high resistance inserted in series with the sensing element having a voltage source eliminates the step-down transformers and sometimes increases the sensitivity of the element. The evaluation of the sensing element circuits is based on the method of open and short-circuit measurements. The basic formula is

$$U_x = \frac{I_{k.3}}{G_{x.x} + G_x}, \qquad (1)$$

Card 1/6

where U_x is the voltage across the transmitter; $I_{k.z}$ is the short-circuit current in the transmitter circuit ($G_x = \infty$); $G_{x.x}$ is the open-circuit conductance between the transmitter terminals. Fig. 1 represents a parallel circuit with a current source, equivalent to a series circuit with a constant voltage source. The maximum sensitivity values are the same in both cases. The sensitivity in the parallel circuit is of opposite sign to that in the series circuit.

$$\frac{G'_{x0}}{G_{x0}} = \frac{R'_{x0}}{R_{x0}}; \qquad (2)$$

The power sensitivity is maximum when the load resistance is equal to 1/2 of the transmitter resistance in the parallel circuit, and double the transmitter resistance in the series circuit. Fig. 2 represents a parallel circuit with a limiting conductance which is equivalent to a series circuit with a shunt. This circuit gives highest power sensitivity. A simple bridge circuit is also given;

Sensing elements with a ...

the basic parameters of this circuit with the current generator are constants n and a, where a is a short-circuit parameter. Fig. 5 depicts the circuit diagram of a balanced series connection of the sensing element with a polarized relay; it can be used instead of a bridge circuit with a polarized relay. R_x is a semiconductor transmitter-modulator; w_H is the working winding of the relay having a resistance R_H; R_{ycm} is an adjusting rheostat; w_p is the control winding of the relay having a resistance R_p. The condition of balance is the absence of the magnetic flux in the polarized relay MC. With the voltage generator supply the current sensitivity of the bridge is

$$S_i = - R'_x \frac{U_{x.x}}{\left(R_x + \frac{U^2_{x.x}}{4P}\right)^2}, \qquad (6)$$

i.e. the same as in a simple series circuit. With a current genera-

Sensing elements with a ...

tor supply to the bridge the current sensitivity is

$$S_{iH.M} = - \frac{R'_{x0}}{R_{x0} + R_H} \cdot \sqrt{\frac{P}{R_{x0}}} \qquad (11)$$

and it has a maximum at $U_{x.x.M} = 2\sqrt{PR_{x0}}$. The power sensitivity is

$$S_{p\,H\,M} = - 0.01 \cdot 2 \frac{R'_{x0} R_H}{(R_{x0} + R_H)^2} P = - 0.01 \cdot \frac{1}{2} \cdot \frac{R'_{x0}}{R_{x0}} P \qquad (12)$$

and it has a maximum at $U_{x.x.M} = 2\sqrt{PR_{x0}}$ and $R_H = R_{x0}$. There are 5 figures, 1 table and 2 Soviet-bloc references.

ASSOCIATION: Institut energetiki AN BSSR (Institute of Power Engineering, AS BSSR)

SUBMITTED: September 1, 1960

Card 4/6

27081

S/143/61/000/001/003/006
A207/A126

9,6000

AUTHOR: Tyushkevich, N. I., Engineer

TITLE: Sensitive instruments of automatics with semi-conductor transmitter--modulators of limited dispersion power

PERIODICAL: Energetika, no. 1, 1961, 47 - 53

TEXT: The present article deals with the calculation method of the static working conditions of sensitive instruments with transmitter-modulators (thermistors, photo-resistance, photo-diodes, photo-triodes, transmitters of radioactive emission), which enable one to obtain the maximum sensitivity of an instrument at a certain parameter value x_o, under the condition, that the power in the transmitter does not exceed the permissible value of P, at any value of the parameter x. The calculation is based on the fact that the static voltampere characteristic of the transmitter is a straight line. The calculation is further based on the sensitivity of the organs in idle running and short circuit. The author carries out the calculations of a successively connected scheme of a sensitive instrument consisting of a transmitter R_x, with a dispersion power of R and load R_1. The author arrives at the following conclusions: 1) The sensitivity of the discussed

Card 1/2

schemes is directly proportional to the first derivative of the functional relation of the transmitter $R_x = f(x)$ at the interested value of the acting parameter x_0. Thus, from the point of view of sensitivity elevation of the schemes, it is feasible to use transmitters with as high a value of R'_x as possible. 2) A simple series scheme with a shunt is the most sensitive according to current; according to voltage it is a bridge scheme with transmitters in opposite shoulders. 3) A series scheme with a shunt has the highest sensitivity according to power. 4) Parallel connection into the scheme n of the same transmitters, instead of one, leads to an increase of sensitivity in the current and in the power by n times. The voltage sensitivity does not change in this case. 5) The use of the idle running method with semi-conductors of limited power of dispersion enables one to obtain simple relations, by which maximum sensitivity of the instrument is achieved. There are 5 figures, 1 table and 4 Soviet-bloc references:

ASSOCIATION: Institut energetiki AN BSSR, Nauchnyy seminar laboratorii elektrotekhniki (The Power Engineering Institute of the AS BSSR, Research Seminar of the Power Engineering Laboratory).

SUBMITTED: August 2, 1960

Card 2/2

L 20662-66 EWT(1)/EWA(h)

ACC NR: AP6007871 SOURCE CODE: UR/0103/66/000/002/0147/0151

AUTHOR: Tyushkevich, N. I. (Minsk)

ORG: none

TITLE: Parameter spread, stability, and life of FSK photoresistors

SOURCE: Avtomatika i telemekhanika, no. 2, 1966, 147-151

TOPIC TAGS: photoresistor, XXXXXXX variable resistor

ABSTRACT: The results of testing several lots of FSK-1 (unsealed) and FSK-G1 (sealed) photoresistors are reported. The current spread is given by this table:

	FSK-1			FSK-G1		
Year of manufacture		1961		1961	1963	1965
Number of specimens		48		49	100	50
Illumination, lux	10	100	1000	200	200	200
Current, @ 200 lux, 50 v, ma	0.27	1.58	6.61	2.44	2.51	2.47
Spread, ma	0.11	0.43	1.47	0.78	0.83	0.65
or %	41.0	27.2	22.3	32.0	33.1	26.3

Card 1/2 UDC: 621.383.42:546.48'22

L 20662-66

ACC NR: AP6007871

FSK-1 photoresistors exhibit certain loss of sensitivity of the "fatigue" type; after a period of "rest," their sensitivity is restored. FSK-G1 photoresistors show aging in the initial period of their operation. Two lots of FSK-G1 (48 in each) were tested for life with a dissipation power of 0.2 w. One lot was tested in a chamber at 50C and 600 lux; the other lot was exposed to sunlight; both were supplied from a 220-v 50-cps line through ballast resistors. The first lot showed an average life of 4420 hrs; the second, 960 hrs. Under room conditions, the FSK-G1 type proved to have a shorter life than the FSK-1. Orig. art. has: 5 figures, 1 formula, and 2 tables.[03]

SUB CODE: 09 / SUBM DATE: 22Dec64 / ORIG REF: 003/ ATD PRESS: 4223

Card 2/2 BK

8(3) SOV/143-60-1-6/21

AUTHOR: Tyushkevich, N.I., Engineer

TITLE: The Design of Photorelay Circuits with FS-K Photoresistors

PERIODICAL: Izvestiya vysshykh uchebnykh zavedeniy: Energetika, 1960, Nr 1, pp 39 - 48 (USSR)

ABSTRACT: The article surveys methods of designing photorelays without amplifiers on the basis of FS-K photoresistors. They may be used for switching on artificial lighting. The FS-K1, FS-K2 and FS-K0 photoresistors have, as distinct from types FS-A, FS-B and FSK-M, greater dissipation power and working voltage. Table 1 shows their basic parameters. It is usually considered that the drawbacks of FS-K photoresistors are their considerable inertia and sensitivity to changes in temperature and humidity, but when they are used as pickups for automatic lighting their inertia becomes a positive quality, since it permits fluctuations

Card 1/5

The Design of Photorelay Circuits with FS-K Photoresistors

in the lighting to be blocked. Formulae are given for determining the light characteristics and electrical resistance of the FS-K. The relationship of the photocurrent to the illumination in the resistors has a non-linear character (curve 1, Figure 1) and may be expressed as follows:

$$I_{\Phi} = P\Phi^{\alpha} = B'E^{\alpha} \quad [ma] \qquad (1)$$

where B and B' are constants; α is the coefficient of non-linearity ($\alpha < 1$). The specific sensitivity with a given illumination of E_1 is

$$K_{01} = K_{0T}\left(\frac{E_1}{E_T}\right)^{\alpha-1} = \frac{10^7}{A.E_1^{1-\alpha}.s} \quad \left[\frac{\text{microampere/lumen}}{\text{volt}}\right] \qquad (7)$$

Card 2/5 Each photoresistor should have on its rating plate

The Design of Photorelay Circuits with FS-K Photoresistors

the specific sensitivity K_{OT} with a given illumination E_T and the coefficient of non-linearity . The author describes the simplest scheme for a photorelay with FS-K resistors, shown in Figure 3. More formulae are given for determining resistances, and that for the maximum feed voltage U_p, given the resistance of the load R_n, is

$$U_{pm} = 2\sqrt{P_{fn} R_n} \qquad (14)$$

Finally, a photorelay bridge circuit with a photoresistor in one arm (Figure 5) is described. It contains a sensitive polarized relay (RP-4, RP-5) and an intermediate relay (MKU-48). Calculations for its design are given: the first step is the assumption that the resistance of the photoresistor

Card 3/5

The Design of Photorelay Circuits with FS-K Photoresistors

varies from nil (when E = ∞) to infinity (when E = 0) and is equal to

$$R_1 = R + \Delta R \qquad (15)$$

where R is the resistance of the photoresistor, at illumination E_0. If the bridge is balanced at illumination E_0 and the operation current of the polarized relay on both sides is I_{sr} then the operation illuminations will be

$$E_{sr} \approx E_0 \left(1 \pm \frac{I_{sr}}{S_i}\right) \quad [\text{lux}] \qquad (40)$$

where S_i is the absolute sensitivity of the bridge circuit. There are 4 graphs, 1 set of graphs, 2

Card 4/5

SOV/143-60-1-6/21

The Design of Photorelay Circuits with FS-K Photoresistors

diagrams, 1 table and 8 Soviet references.

ASSOCIATION: Belorusskiy politekhnicheskiy institut imeni I.V. Stalina (Belorussian Polytechnical Institute imeni I.V. Stalin)

SUBMITTED: September 5, 1959, by the Kafedra tekhniki vysokikh napryazheniy (Chair of High-Tension Technology)

Card 5/5

TYUSHKEVICH, S., polkovnik, kand. filosofskikh nauk

Scientific potential in the country's defense. Kommun. Vooruzh. Sil 46 no.14:8-16 Jl '65. (MIRA 18:7)

SUSHKO, N., polkovnik; TYUSHKEVICH, S., polkovnik; FEDOROV, G., polkovnik

Developing the Marxist-Leninist theory of present-day war. Kom. Vooruzh. Sil 1 no.18:19-29 S '61. (MIRA 14:9)
(War)

TYUSHKEVICH, Stapna Andreyevich, kand. fil. nauk; RYBKIN, Ye.I., red.; ROMANOV, I.M., red.; CHAPAYEVA, R.I., tekhn. red.

[Necessity and chance in war]Neobkhodimost' i sluchainost' v voine. Moskva, Voenizdat, 1962. 134 p. (MIRA 15:10)
(War)

TYUSHKEVICH, Z. R., Cand Med Sci (diss) -- "A comparative evaluation of shock and shockless methods of insulin therapy of schizophrenia patients". Minsk. 1959. 12 pp (Minsk State Med Inst), 200 copies (KL, No 14, 1960, 139)

TYUSHKEVICH, Z.R.

Oxyhemometric data in insulin therapy of schizophrenic patients.
Zdrav.Belor. 3 no.10:32-34 O '57. (MIRA 13:6)

1. Iz kafedry psikhiatrii Minskogo meditsinskogo instituta
(zaveduyushchiy kafedroy - prof. M.A. Chalisov).
(BLOOD--OXYGEN CONTENT) (INSULIN) (SCHIZOPHRENIA)

TYUSHKEVICH, Z.R.

Comparative evaluation of shock and nonshock methods in the insulin treatment of schizophrenia. Zdrav.Belor. 5 no.8: 50-52 Ag '59. (MIRA 12:10)

1. Kafedra psikhiatrii (zaveduyushchiy kafedroy - prof.M.A. Chalisov) Minskogo meditsinskogo instituta.
(SCHIZOPHRENIA) (INSULIN)

USSR / Human and Animal Physiology. Respiration. T

Abs Jour : Ref Zhur - Biol., No 15, 1958, No. 70220

Author : Tyushkevich, Z. R.
Inst : Not given
Title : Data from Oxyhemomotry in Insulin Therapy of Schizophrenia

Orig Pub : Zdravookhran. Belorussii, 1957, No 10, 32-34

Abstract : No abstract given

Card 1/1

Tyushnikov, E.

USSR/ Electronics

Card 1/1 Pub. 89 - 30/40

Authors : Freydlis, A.; Kotel'nikov, N.; Pavlenko, V.; Tyushnikov, E.; Trapeznikov, A.; Vorob'yev, V.; Tkachenko, L.; and Nechay, V.

Title : Exchange of experiences

Periodical : Radio 10, 42-43, Oct 1954

Abstract : Several small articles, sent in by local radio operators, are featured under the above title. Each author offers, for the benefit of the others, the results of his experience in the field of electronics. The following equipment and subjects are dealt with: an automatic safety device for the protection of rural radio-center personnel against electric shock; a miniature signal generator; an "interference-free" receiving antenna; a radio-relay station of the Urozhay type; a piezoelectric pickup for an electric guitar, and others. Diagrams; drawings.

Institution: .....

Submitted: .....

TYUSHNIKOV, Ye. (g. Gavrilov-Yam, MTS)

Interference preventing receiving antenna for the "Urozhai" radio rediffuser. Radio no.10:42 O '54. (MLRA 7:11)
(Radio--Antennas)

Deceased 1964

TYUSHNYAKOV, A.I. [deceased]; IVANOV, I.P.

New method for sampling placer deposits. Razved. i okh. nedr 28 no.12:9-15 D '62. (MIRA 16:5)

1. Timptono-Uchurskaya ekspeditsiya.
(Placer deposits--Sampling and estimation)

LEBEDEV, I. (Chelyabinsk); TYUSHNYAKOV, P. (Chelyabinsk) KIND, B. (Chelyabinsk)

Give young specialists daily aid and attention. Prom.koop. no.2: 30 F '57. (MLRA 10:5)

(Efficiency, Industrial)

PAVLOTSKAYA, F.I.; FEDOSEYEV, G.A.; BABICHEVA, Ye.V.; ZATSEPINA, L.N.; TYURYUKANOVA, E.B.

Methods of determining strontium-90, stable strontium, and calcium in soils and plant residues. Pochvovedenie no.2:105-112 F '64. (MIRA 17:3)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo.

L 3382-66 EWT(d)/EWT(m)/EWP(c)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(h)/EWA(c)/ETC(m) JD/WW/HM

ACCESSION NR: AP5023084 UR/0125/65/000/009/0047/0051

621.791.76:66.041.498(438)

AUTHOR: Kadushkevich, Ye. (Engineer); Tyushnyakov, I. F. (Engineer); Lebedev, B. F. (Candidate of technical sciences); Fed'ko, I. V. (Engineer)

TITLE: Welding of converter shells in the Polish Peoples Republic

33
30
B

SOURCE: Avtomaticheskaya svarka, no. 9, 1965, 47-51

TOPIC TAGS: automatic welding, welding flux, welding electrode

ABSTRACT: The article describes a welding job done by Polish workers with the aid of a brigade of Soviet specialists in assembling the shells, which had a thickness of 50 mm, special attention was paid to maintaining their diameters with an accuracy of 15 mm and to joining the two halves of each shell in the same plane with an accuracy of ±3 mm. Electric slag welding was done with A-433P and A-820 machines using 3 mm diameter Sv-10G2 welding rod and An-8 flux. To avoid a possible sharp increase in the width of the seam and fusing of the outlet housing due to decreased heat removal, the electrode voltage was decreased to 2-4 volts. Welding of metal with a thickness of 100 mm was started only after preheating of the under side of the joint to 300 C to guarantee good fusing of the

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L 3382-66

ACCESSION NR: AP5023084 3

bead at the start of the joint. Transverse residual deformations were found to be especially great at the end sections of the joint. The annular joining of the converter body was done by hand arc welding, with E42A electrodes brand UONI-13/45. The following conclusions were drawn from the work: 1) the magnitude of the end deformations is a direct function of the size of the gap and of the amount of fused metal; and 2) the sequence in which the joints are welded was found to have little effect on welding deformations. Orig. art. has: 5 figures and 1 table

ASSOCIATION: Yuzhno-Ural'skiy mashinostroitel'nyy zavod (South Ural Machine Fabrication Plant);Institut elektrosvarki im. Ye. O. Patona AN UkrSSR (Electrowelding Institute AN UkrSSR);Khuta im. V. I. Lenina, PNR (Khuta, Polish Peoples Republic)

SUBMITTED: 23Jan65 ENCL: 00 SUB CODE: MM

NR REF SOV: 000 OTHER: 000

Card 2/2 hd

TYUSHNYAKOVA, M.K.

Laboratory diagnosis of listerella infection in man. Zhur. mikrobiol.epid.i immun. no.1:45-46 Ja '54. (MLRA 7:2)

1. Iz Tomskogo instituta vaktsii i syvorotok. (Listeria)

TYUSHNYAKOVA, M.K.

Materials on the virusology of serous meningitis. Zhur. mikrobiol. epid. i immun. no.10:98 O '54. (MLRA 8:1)

1. Iz Tomskogo instituta vaktsin i syvorotok
(MENINGITIS VIRUSES)

TYUSHNYAKOVA, M.K.

Listerellosis in sheep. Veterinariia 32 no.9:39-40 S '55.
(SHEEP--DISEASES) (LISTERELLOSIS) (MLRA 8:12)

TYUSHNYAKOVA, M. K.

"On the utilization of virological, bacteriological and serological analysis in the microbiological diagnosis of encephalitic meningitis," was a report given at an interoblast scientific-practical conference on problems of laboratory diagnosis of infectious diseases was held at the Tomsk Scientific Reasearch Institute of Vaccines and Sera, 12-16 March 1956.

SUM: 1360 p 237

TYUSHNYAKOVA, M.K.;NEBOLYUBOVA, G.Ye.

Complement fixation reaction as a method of determining the specific activity of antirabic serum and gamma globulin. Trudy Tom NIIVS 12:261-265 '60. (MIRA 16:11)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

TYUSHNYAKOVA, M.K.

Antigenic and immunogenic activity of attenuated strains of tick-borne encephalitis viruses. Trudy TomNIIVS 14:238-241 '63.

Study of antigens from attenuated strains of the virus of tick-borne encephalitis in complement fixation reaction. Ibid.:251-253 (MIRA 17:7)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

TYUSHNYAKOVA, M.K.; MYASOYEDOV, V.S.; YEROFEYEV, V.S.; ZAGROMOVA, M.S.

Some data on the incidence and foci of lymphocytic choriomeningitis in Tomsk Province. Trudy Tom NIIVS 12:91-95 '60
(MIRA 16:11)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

*

TYUSHNYAKOVA, M.K.; FEDOROV, Yu.V.; ZAGROMOVA, M.S.; BELOVA, F.S.

Specific properties of cerebral diagnosticum precipitated in methyl alcohol in tick-borne encephalitis. Trudy TomNIIVS 11: 66-71 '60. (MIRA 16:2)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok i Klinika infektsionnykh bolezney Tomskogo meditsinskogo instituta.
(ENCEPHALITIS) (ANTIGENS AND ANTIBODIES)
(COMPLEMENT FIXATION)

TYUSHNYAKOVA, M.K.; ZAGROMOVA, M.S.

Research data on lymphocytic choriomeningitis in Tomsk Province.
Trudy TomNIIVS 11:25-32 '60. (MIRA 16:2)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.
(TOMSK PROVINCE—MENINGITIS) (LYMPHOCYTES)

TYUSHNYAKOVA, M.K.

Alimentary route of transmission of the virus of lymphocytic choriomeningitis. Vop.virus 7 no.4:50-52 Jl-Ag '62. (MIRA 15:8)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.
(MENIGITIS VIRUSES)

TYUSHNYAKOVA, M.K.; ZAGROMOVA, M.S.; FEDOROV, Yu.V.

Production of a diagnostic preparation for the complement fixation reaction in tick-borne encephalitis. Vop. virus. 5 no. 2:204-208 My-S '60. (MIRA 14:4)

1. Tomskiy institut vaktsin i syvorotok Ministerstva zdravookhraneniya RSFSR.
(ENCEPHALITIS) (COMPLEMENT FIXATION)

Tyushnyakova, M.K.

PHASE I BOOK EXPLOITATION SOV/4146

Tomsk. Nauchno-issledovatel'skiy institut vaktsin i syvorotok

Trudy, tom 11 (Transactions of the Tomsk Scientific Research Institute of Vaccines and Serums, Vol. 11) Tomsk, Izd-vo Tomskogo univ-ta, 1960. 327 p. 1,700 copies printed.

Editorial Board: B.G. Trukhmanov (Resp. Ed.) Director of the Tomsk Scientific Research Institute of Vaccines and Serums; S.P. Karpov (Deputy Ed.) Professor; Ye. I. Kleytman (Secretary); M.A. Mastenitsa; and V.M. Popov (Deceased); Tech. Ed.: A.T. Osovskiy.

PURPOSE: This collection of articles is intended for biologists, physicians, and medical personnel.

COVERAGE: The collection contains 18 papers on problems of epidemiology and microbiology and 33 reports on the theory and practice of immunology. To avoid repetition of names of organizations in the table of contents the following affiliations will be abbreviated: Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok (Tomsk Scientific Research Institute of Vaccines and Serums) as "Tomsk Institute"; Tomskiy meditsinskiy institut as "Tomsk Medical Institute"; Kafedra mikrobiologii Tomskogo meditsinskogo instituta (Department of Microbiology of the Tomsk Medical Institute) as "Tomsk Department of Microbiology."

USSR/Virology - Viruses of Man and Animals. Viruses of Transmittable Infections. E

Abs Jour : Ref Zhur Biol., No 6, 1959, 23802

Author : Fedorov, Yu.V., Tyushnyakova, M.K.
Inst : -
Title : The Characteristics of the Strain of Acarid-Bite Encephalitis Virus Isolated from Acarides Ixodes Plumbeus Leach, Collected from Sand Martins.

Orig Pub : Vopr. virusologii, 1958, No 5, 279-281

Abstract : For the first time, in Western Siberia, from Ixodes Plumbeus Leach collected from sand martins, a neurotrophic virus, identical to the standard strain of acarid-bite encephalitis virus, was isolated.

Card 1/1

FEDOROV, Yu.V.; IGOLKIN, N.I.; TYUSHNYAKOVA, M.K.

Some data on fleas as virus carriers in foci of tick-borne encephalitis and lymphocytic choriomeningitis. Med.paraz. i paraz.bol. 28 no.2:149-152 Mr-Ap '59. (MIRA 12:6)

1. Iz Tomskogo nauchno-issledovatel'skogo instituta vaktsin i syvorotok Ministerstva zdravookhraneniya SSSR (dir.instituta B.G.Trukhmanov, nauchnyy rukovoditel' - prof.S.P.Karpov).

(ENCEPHALITIS, EPIDEMIC, transm.
virus carriage by fleas in foci of tick-borne encephalitis (Rus))
(VIRUS DISEASES, transm.
by fleas, in foci of lymphocytic choriomeningitis (Rus))
(FLEAS
virus carriage by fleas in foci of tick-borne encephalitis & lymphocytic choriomeningitis (Rus))

GROSHKOVA, I.M.; PAVLOVA, M.S.; POPOV, V.M. [deceased]; TYUSHNYAKOVA, M.K.

Data on the epidemiology of a tick-borne encephalitis focus in Kustanay Province. Vop.virus. 4 no.2:194-197 Mr-Ap '59. (MIRA 12:6)

1. Kazakhskaya respublikanskaya sanitarno-epidemiologicheskaya stantsiya, Alma-Ata, i Tomskiy institut vaktsin i syvorotok.
(ENCEPHALITIS, EPIDEMIC, epidemiol.
tick-borne, in Russia (Rus))

TYUSHNYAKOVA, M.K.

Preservation of dry tick-borne encephalitis immune sera.
Vop.virus. 3 no.4:247-248 Jl-Ag '58 (MIRA 11:9)
(ENCEPHALITIS, immunol.
Russian tick-borne, preserv. of dry antisera (Rus))

FEDOROV, Yu.V., TYUSHNYAKOVA, M.K.

Characteristics of a strain of tick-borne encephaltitis virus isolated from the tick Isodes plumbeus, Leach collected from sand martins. [with summary in English]. Vop.virus. 3 no.5:279-281 S-O '58 (MIRA 11:10)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.
(TICKS,
Ixodes, plumbeus, properties of tick-borne encepahlitis virus isolated from tikes collected from sand martin (Rus))
(ENCEPHALITIS, EPIDEMIC, virus,
tick-born, properties of strains isolated from Ixodes plumbeus collected from sand martin (Rus))

TYUSHNYAKOVA, M.K.

USSR / Virology. Human and Animal Viruses. E-3

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 5011

Author : Tyushnyakova, M.K.

Inst : Not given

Title : Virus Content of Ticks Ixodes Persulcatus from Different Points of Tomsk Nidus of Tick Encephalitus.

Orig Pub : Tr. Tomskogo un-ta, 1956, 142, 353-354

Abstract : A wavelike change of intensity in encephalitis virus carried by ticks is shown; it changed from 1.6 to 3 percent. A higher degree of virus carrying is noted in ticks of southern districts than in those of central and northern districts. The highest number of ticks was noted in the central district. The virus strains isolated from ticks possessed a higher virulence on white mice than strains isolated from rodents and sick people.

Card : 1/1

GOLOVIN, A.A.; KARASEV, K.A.; TYUSHNYAKOVA, M.N.

Investigating a partial ore sample from a gold ore deposit. Sbor. nauch. trud. Ural. politekh. inst. no.134:89-91 '63. (MIRA 17:1)

TYUSIN, F.S., kandidat istoricheskikh nauk, polkovnik; ARISTOV, A.D., redaktor; KAZAKOVA, V.Ye., tekhnicheskiy redaktor

[Struggle of the Communist Party to strengthen the military power of the U.S.S.R.] Bor'ba kommunisticheskoi partii za ukreplenie voennogo mogushchestva SSSR. Moskva, Voen. izd-vo Ministerstva oborony SSSR, 1955. 110 p. (MLRA 8:7)
(Russia--Defenses)
(Communist Party of the Soviet Union)

TYUSIN, V., shlifovshchik, delegat XIII s"yezda professional'nykh soyuzov

The worker's station is a state post. Sov. profsoiuzy 19 no.18: 2-5 S '63. (MIRA 16:12)

1. Saratovskiy metiznyy zavod.

TYUTCHEV, Anatoliy Filippovich; KONONOVA, V.S., red.; GORYACHKINA, R.A., tekhn. red.

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(Road construction)

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TYUTCHEVA, F.M.; KULIKOV, V.I., kand.ist. nauk, red.; MALYSHEV, N.I., tekhn. red.

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21934 TYUTEN'KOV, S. K. Materialy po akklimatizatsii nekotorykh promyslovykh ryb [illegible] vodayemov kayl--Ordinskoy oblasti. Izvestiya Akad. nauk Kazakh. SSR, No. 69, Seriya zool., vyp. 2, 1948, s. 169-75.--Bibliogr: 9 nazv.

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TYUTEVA, N.D.; SVISHCHENKO, V.T.

Modification of cast high-alloy steel. Dokl.AN SSSR 96 no.1:119-120 My '54. (MLRA 7:5)

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TYUTCHEV, N.A. , inzhener.

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(Diesel engines--Repairing)

Y

TAUTCHEV, S.

Grazhdanskaia avaitsiia. Sovremennoe osveshchenie vozdushnykh linii. [Civil Aviation. Modern lighting on air lines]. (Khronika vozdushnogo dela, 1930, no. 2 (31), p.18-24).
DLC: TL504.K5

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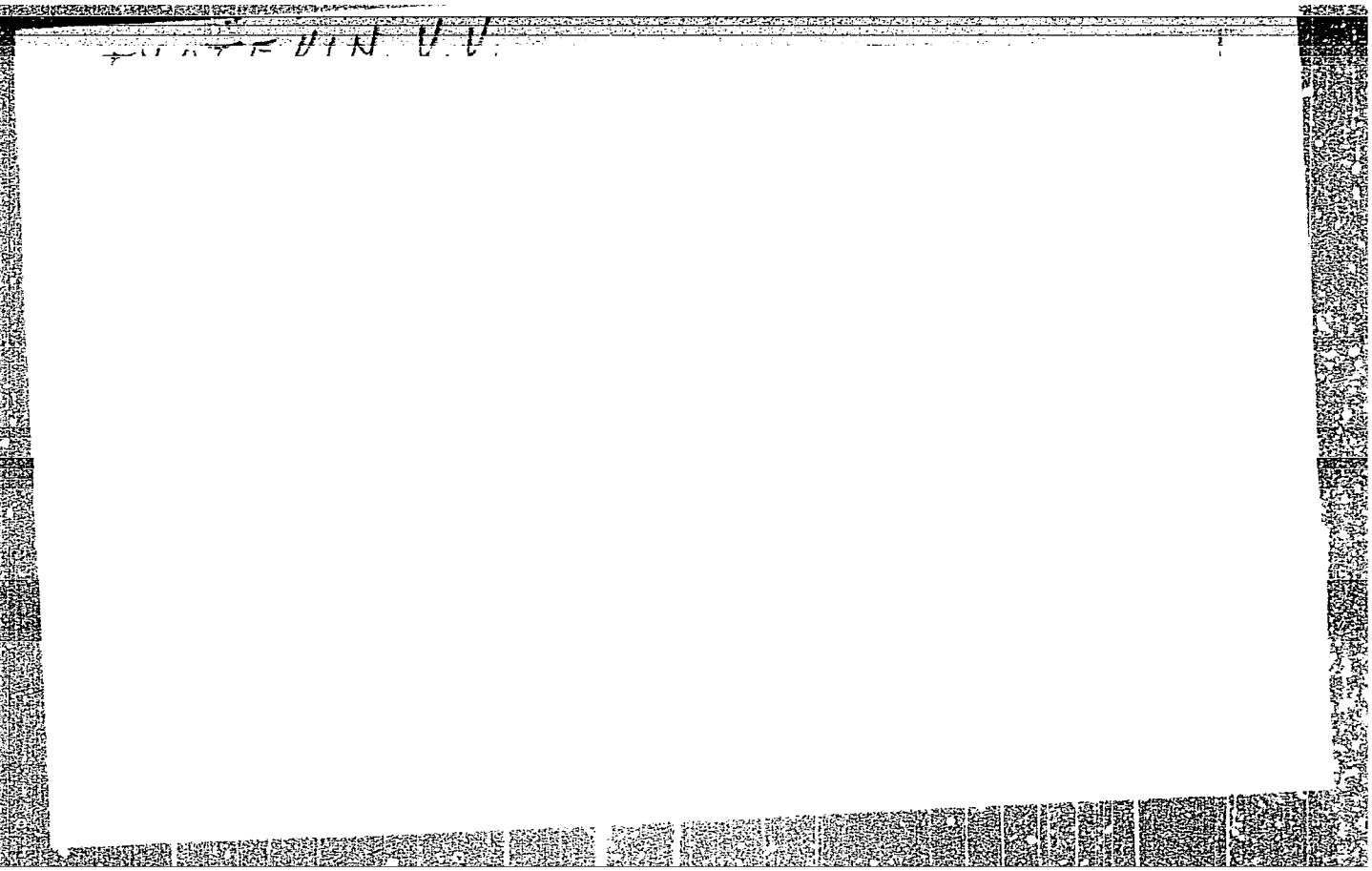

SOV/180-59-1-15/29

AUTHORS: Plaskin, I.N., Tyurnikova, V.I. and Chaplygina, Ye.M. (Moscow)

TITLE: Influence of Oxygen on the Attachment and Distribution of Tridecylate on the Surface of Fluorite in Flotation (Vliyaniye kisloroda na zakrepleniye i raspredeleniye tridetsilata na poverkhnosti flyuorita pri flotatsii)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 1, pp 78-81 (USSR)

ABSTRACT: Two of the authors have experimentally shown the different effects of gases on the flotation of some sulphide and non-sulphide minerals and ores (Ref 1) and established (Ref 2) that oxygen can increase the density of the adsorbed layer and the firmness of its attachment. The investigation now reported had the aim of elucidating the specific influence of oxygen on the reaction of minerals with reagents by studying the adsorption of the collector radiometrically and its distribution by the microauto-radiographic method. The collector was sodium tridecylate (or tridecylic acid) containing radioactive C^{14} as a tracer. Preliminary experiments showed the behaviour of these reagents to be the same as that of sodium oleate (not available with a tracer). The apparatus used was a

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Influence of Oxygen on the Attachment and Distribution of Tridecylate on the Surface of Fluorite in Flotation

modification of one previously described (Ref 5). Zabaykal'skiy (Zabaykal) fluorite ground to -74 +44 microns was used. 20g samples with a solid/liquid ratio were treated for 2 minutes with the reagent (100 g/tonne of tridecylic acid, 200 of soda) and flotated for 4-10 minutes. An average sample of the washed product was taken and the absorption of reagent was determined radiometrically and by autoradiography. Fig 1 shows the influence of the oxygen content of the pulp on the recovery (curve E) and the absorption of reagent (curve e); both rise with increasing oxygen content: Table 1 gives further details. From the microautoradiograms the non-uniformity of reagent distribution on grain surfaces at various pulp oxygen contents was determined. The results (Table 2) show that this effect too, depends on the oxygen content. Figs 2, 3 and 4 show the increasing

SOV/180-59-1-15/29

Influence of Oxygen on the Attachment and Distribution of Tridecylate on the Surface of Fluorite in Flotation

quantity of reagent and its more uniform distribution on particle surfaces, as the oxygen-content rises from 0.1 to 8.3 to 38.8 mg/litre, respectively.

There are 4 figures, 2 tables and 6 references (5 Soviet, 1 English).

Card 3/3

SUBMITTED: January 22, 1958

GEL'FAND, Aleksandr Yevseyevich, inzh.; GETSOV, Iosif Yefremovich, kand. tekhn. nauk; CHERNOV, M.I., retsenzent; DOLGOLENKO, P.V., retsenzent; TYUTCHEV, N.A., red.; VITASHKINA, S.A., red. izd-va; YERMAKOVA, T.T., tekhn. red.

[Precision and finish of the machining of parts in repairing ship machinery] Tochnost' i chistota obrabotki detalei pri remonte sudovykh mekhanizmov. Moskva, Izd-vo "Rechnoi transport," 1961. 151 p. (MIRA 14:12)

(Marine engines--Maintenance and repair)

TYUTCHEV, N.A., inzh.

On the book by B. I. Shul'meister "Repair and assembly of stationary diesel engines." Energomashinostroenie 6 no.6:44 Je '60. (MIRA 13:8)

(Diesel engines)
(Shul'meister, B.I.)

TYUTCHEV, N.A., otv. za vypusk; EBERLIN, K.Z., red. izd-va; BODROVA, V.A., tekhn. red.

[Technical specifications for the repair of the 3D6 TU RF 411-11R-59 internal combustion engine] Tekhnicheskie usloviia na remont dvigatelia vnutrennego sgoraniia 3D6 TU RF 411-11R-59. Moskva, Izd-vo "Rechnoi transport," 1961. 343 p. (MIRA 15:1)

1. Russia (1917- R.S.F.S.R.) Ministerstvo rechnogo flota. Tekhnicheskoye upravleniye.
(Gas and oil engines—Maintenance and repair)
(Marine engines—Specifications)

VADIKOVSKAYA, L.M.; KIRILLOV, G.N.; KOZLOVA, M.M.; GHZHAO, A.Ye.; TYUTCHEVA, F.M., red.; TSVETAYEVA, Ye.M., red.; POLESITSKAYA, S.M., tekhn.red.

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1. Moscow. Publichnaya biblioteka.
(Bibliography--Agriculture)

TYUTEKIN, V.V.

534.2 : 539.32

1501. A METHOD OF MEASURING THE MECHANICAL PARAMETERS OF RUBBER AT SONIC AND ULTRASONIC FREQUENCIES. V.V. Tyutekin. Akust. Zh., Vol. 1, No. 4, 356-9 (1955). In Russian.

The paper describes a method for determining the mechanical parameters over a continuous frequency band. The elastic modulus and loss coefficient can be measured for shear strains over a frequency range 4-50 kc/s.

C.R.S. Manders

1

MA-YOUTZ

Acoustics

2-MAY

Acoustics Inst., ASUSSR

TYUTEKIN, V.V.

USSR./ Acoustics. Sound Vibrations and Waves J-2

Abs Jour : Ref Zhur - Fizika, No 5, 1957, No 12666

Author : Tyutekin, V.V.

Inst : Acoustics Institute, Academy of Sciences, USSR

Title : Propagation of Elastic Waves in a Medium with Cylindrical Channels.

Orig Pub : Akust. zh., 1956, 2, No 3, 291-301

Abstract : The author develops the theory of propagation of elastic waves in rubber-like material with cylindrical channels, and determines the acoustical parameters of the medium. The medium can be used as a sound absorber. It is proposed that the channels have a circular cross section and that in any plane perpendicular to their axis they be so arranged that a "dense packing" is formed of regular hexagons whose centers

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USSR / Acoustics. Sound Vibrations and Waves J-2

Abs Jour : Ref Zhur - Fizika, No 5, 1957, No 12666

: rubber-like material and given the geometric dimensions of the channels. It is emphasized that with the aid of the nomograms it is possible to solve the inverse problem, that of determining the complex shear modulus of the rubber from a known value of the complex wave number of an artificial absorbing medium. Bibliography, 7 titles.

Card : 3/3

TYUTEKIN, V. V.

"Diffraction of a Plane Wave on a Cylindrical Cavity in an Elastic Medium."

paper presented at the 4th All-Union Conf. on Acoustics, Moscow, 26 May - 2 Jun 58.

TYUTEKIN, V. V.

46-4-1-4/23

AUTHORS: Vovk, A. Ye, Pasternak, R. N., Tyutekin, V. V.

TITLE: Experimental Investigation of Wave Motion in a Medium with Cylindrical Channels. (Eksperimental'noye issledovaniye volnovykh svoystv sredy s tsilindricheskimi kanalami.)

PERIODICAL: Akusticheskiy Zhurnal, 1958, Vol.IV, Nr.1, pp.24-32. (USSR)

ABSTRACT: An approximate calculation of acoustic properties of a medium with cylindrical channels (cavities) was carried out by G.D. Malyuzhintsev. V.V. Tyutekin (Ref.1) dealt with the problem of propagation of elastic waves in such a medium. For the special case of a rubberlike material an expression was obtained for the complex wave-number corresponding to waves propagated parallel to the channel axes when the channel radius was small compared with the shear wavelength (the "static" case). A dynamical correction, similar to the Rayleigh correction, for the case of propagation of axially symmetric elastic waves in a solid rod was found. In the present paper the authors show how to calculate the complex wave-number from the measured value of the complex

Card 1/4

Experimental Investigation of Wave Motion in a Medium with Cylindrical Channels.

impedance of a medium with cylindrical channels. This calculation is followed by the description of an experimental verification of the theory given in Ref.1 and an analysis of experimental determination of acoustic properties of the medium in the case when the channel radius is comparable with the shear wavelength, since the latter case could not be dealt with theoretically because of its complexity. The experimental studies were carried out using the "pulse" tube apparatus (Ref.5,6). Rubber cylinders with cylindrical cavities parallel to their axes were used as samples in this study. In order to satisfy the theoretical conditions given in Ref.1 the number of channels had to be equal to 7, 19, 37 etc. (see Fig.1). A further theoretical condition of radial fixing of the external surfaces of samples was complied with by complete immersion in the pulse tube and attachment to the latter by means of a wire. Figs. 3 and 4 show experimental values (crosses, dots and triangles) of quantities P and Q which occur in the expression for the complex

Experimental Investigation of Wave Motion in a Medium with Cylindrical Channels.

impedance of the sample Z_0 (Eq.3'). Theoretical values of P and Q calculated from the elastic constants of rubber, are given as continuous curves in Figs.3 and 4. The agreement between experiment and theory is considered to be satisfactory. Fig.6 shows non-dimensional compressibility of a channel in the rubber sample for various values of the quantity ε. This quantity is given by $\varepsilon = a/b$, where a = channel radius and b = radius of a tube equivalent in size to the hexagonal prism surrounding the channel as shown in Fig.1. Fig.7 shows the results of measurement of the complex shear modulus of rubber with cylindrical channels. This figure shows also (crosses) the results from Ref.8 which were obtained using a long acoustic line. Good agreement between the results obtained by the present authors and those of Ref.8 can be seen in Fig.7. There are 7 figures, 1 table and 8 references, 5 of which are Soviet, 2 American and 1 German.

46-4-1-4/23

Experimental Investigation of Wave Motion in a Medium with Cylindrical Channels.

ASSOCIATION: Acoustics Institute, Academy of Sciences of the USSR, Moscow (Akusticheskiy institut AN SSSR, Moskva)

SUBMITTED: February 20, 1957.

1. Cylindrical shells—Acoustic properties—Theory

Card 4/4

SOV/46-5-1-17/24

AUTHOR: Tyutekin, V.V.

TITLE: Scattering of Plane Waves by a Cylindrical Cavity in an Isotropic Elastic Medium (Rasseyaniye ploskikh voln tsilindricheskoy polost'yu v izotropnoy uprugoy srede)

PERIODICAL: Akusticheskiy Zhurnal, 1959, Vol 5, Nr 1, pp 106-110 (USSR)

ABSTRACT: The problem of scattering of elastic waves by cavities of various forms is of theoretical interest, as well as being important in acoustic studies of defects. The author considers scattering of plane longitudinal waves by an infinite cylindrical cavity in an isotropic elastic medium in the case of normal incidence of the wave on the cavity. Expressions are obtained for scalar and vector potentials in the form of coefficients corresponding to a n-th cylindrical wave. The case n = 0 is discussed in detail. It is shown that, at low values of the shear (rigidity), modulus resonance may occur in the cavity. The paper is

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Scattering of Plane Waves by a Cylindrical Cavity in an Isotropic Elastic Medium

entirely theoretical. Acknowledgments are made to Yu.M. Sukharevskiy for his advice and to G.A. Smirnova for carrying out the calculations. There are 2 figures and 5 references, 3 of which are Soviet, 1 English and 1 translation.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Acoustics Institute of the Academy of Sciences of the U.S.S.R., Moscow)

SUBMITTED: January 28, 1958

81375

S/046/60/006/01/16/033
B008/B011

24.1200

AUTHOR: Tyutekin, V. V.

TITLE: Diffraction of a Plane Sound Wave on an Infinite Cylindrical Cavity in an Elastic Medium at an Arbitrary Angle of Incidence

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 1, pp. 101 - 106

TEXT: The author studied the diffraction of a plane sound wave on an infinite cylindrical cavity at an arbitrary angle of incidence to the cavity axis. Solutions are given for scalar and vector potentials in the form of superpositions of cylindrical waves of various orders of magnitude. The dependence of the zero wave amplitude on the angle of incidence and on frequency is thoroughly examined. a_0 and b_0 ($c_0 = 0$) are coefficients determining the zero-order reflected wave. It follows from Fig. 1a that with a change in the angle, the value of a_0 strongly deviates from its resonance value, which is equal to unity only in the case of $\alpha > 45^\circ$, and with $\alpha = 0$ the value $a_0 = 0$ holds. This is explained by the fact that in

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Diffraction of a Plane Sound Wave on an Infinite Cylindrical Cavity in an Elastic Medium at an Arbitrary Angle of Incidence

the case of $\alpha = 0$, a wave of zero order with the wave number k_1 cannot exist. In this case, an axisymmetric wave with a certain wave number x_o differing from k_1 propagates along the cavity axis (Ref. 4). According to the well-known principle by Rayleigh, no longitudinal waves are radiated into the medium from the cavity in this case. Fig. 1b shows the dependence of the coefficient $|b_o'| = \left|\frac{b_o}{a}\right|$ on the angle of incidence. With $\alpha = 0^\circ$ and $\alpha = 90^\circ$ it is equal to 0, which corresponds to the absence of shear waves in perpendicular incidence, as well as during its propagation along the cavity axis. In the case of incidence angles of $25 - 30^\circ$ a maximum of radiation is observed. Figs. 2a and b show the dependence of the coefficients $|a_o|$ and $|b_o|$ on the frequency at an angle of incidence $\alpha = 45^\circ$. With large β-values, the dependence of a_o differs only little from the value in perpendicular incidence. For small β, the value of the maximum for the case of perpendicular incidence is somewhat larger. It

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Diffraction of a Plane Sound Wave on an Infinite Cylindrical Cavity in an Elastic Medium at an Arbitrary Angle of Incidence

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B008/B011

follows from Fig. 2b that besides the resonance excitation of longitudinal waves there also occurs an excitation of transverse waves. In this connection, there arises a single resonance maximum which is slightly shifted in longitudinal waves with respect to resonance frequency. With large β, it is shifted toward high frequencies, and with small β, toward low frequencies. The author thanks G. A. Smirnova for her computations. There are 2 figures and 4 references: 3 Soviet and 1 English.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Institute of Acoustics AS USSR, Moscow)

SUBMITTED: February 25, 1959

Card 3/3

S/046/60/006/003/011/012
B019/B063

AUTHOR: Tyutekin, V. V.

TITLE: Bending Vibrations of a Circular, Elastic Plate Loaded in Its Center

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 3, pp. 388-391

TEXT: The present article deals with the characteristic frequencies of axisymmetric bending vibrations of a thin, circular, elastic plate arbitrarily loaded in its center. Equation (1) leads to a solution (3) whose coefficients are determined from the set of equations (7) - (9). In order that this set possesses non-trivial solutions it is necessary to set the determinant (10) equal to zero. (10) leads to formula (11) for the resonance frequencies. Subsequently, the author discusses the problem of the possible character of the load and the determination of resonance frequencies when 1) the plate is loaded with an inert mass or 2) a spring, or 3) when using two plates coupled in their centers or a system consisting of a plate and a shaft, which is fixed in the center. The case in which an inert mass is used for loading is described in more detail. There are

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Bending Vibrations of a Circular, Elastic Plate Loaded in Its Center

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2 figures and 2 Soviet references.

VC

ASSOCIATION: Akusticheskiy institut AN SSSR Moskva
(Institute of Acoustics of the AS USSR, Moscow)

SUBMITTED: November 19, 1959

Card 2/2

85658

S/138/60/000/009/007/012
A051/A029

15.9300 2109, 1526, 1417
11.2314

AUTHORS: Tarasov, L.A.; Tyutekin, V.V.

TITLE: A Method for Measuring the Shear and Compression Moduli of Rubber in Small Deformations

PERIODICAL: Kauchuk i Rezina, 1960, No. 9, pp. 38 - 41

TEXT: A method is described for measuring the static shear modulus μ and the first Lamé coefficient λ of rubber in small volumetric (about 0.1%) and shear deformations (about 2 - 3%). The formula for calculating the value of the shear modulus of rubber is derived (Formula 12). The author arrives at this expression by adopting a sample in the form of a rubber cylinder with the outer diameter b, the inner diameter a and the length L_o. Based on a relationship previously derived by the author (Akust. zh., 1956, Vol. 2, No. 3) the value of the effective compression modulus E_{eff} is calculated, which depends on the ratio of the internal and external diameters of the cylinder $\varepsilon = a/b$, and the elastic parameters of the rubber λ and μ, in the case where there are no normal shear and tangential tensions on the external lateral surface. The experimental apparatus used is described in detail. The graphical expression of the absolute compression magnitude of a solid rubber s[illegible] to the pressure represents a straight line.

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A051/A029

A Method for Measuring the Shear and Compression Moduli of Rubber in Small Deformations

The linear relationship is broken only for pressure values below 3 kg/cm^2. The first Lamé coefficient λ is determined from Formula (13), where the average value of λ calculated from 6 measurements was found to be $2.3 \cdot 10^{10}$ dyne/cm^2. The deviation of the results of some of the measurements from the average value did not exceed 10%. Three samples were used in order to calculate the value of μ. The value of ε_o was calculated according to the formula $\varepsilon_o = \frac{a_o}{b} = \frac{a_o}{D}$ where D is the diameter of the sample. The shear modulus μ is determined from the slope of the straight line joining the points found experimentally. μ is equal to the pressure, whereby $\ln \varepsilon_o^2 / \varepsilon^2{}_p = 1$. The shear modulus was found to be $1.5 \cdot 10^7$ dyne /cm^2. At this pressure the maximum value of compression of the samples was no more than 2-2.5%. The method suggested has an accuracy of 10% for measuring the modulus of the volumetric compression and the static shear modulus of rubber in small deformations. The values of λ and μ do not depend on the static pressure to which the medium is subjected, at least in small deformations. It is pointed out that in a small general compression of the sample the shear deformations at the boundaries of the channels in the hollow rubber samples may be high. But under conditions used by the authors in the experiments, the part played by these

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A051/A029

A Method for Measuring the Shear and Compression Moduli of Rubber in Small Deformations

deformations is slight. There are 13 formulae and 2 diagrams.

ASSOCIATION: Akusticheskiy institut Akademii Nauk SSSR (Acoustics Institute of the AS USSR)

Card 3/3

TYUTEKIN, V.V.

Diffraction of a plane sound wave incident at an arbitrary angle on an infinite cylindrical cavity in a elastic medium. Akust.zhur. 6 no.1:101-106 '60. (MIRA 14:5)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound waves—Diffraction)

TYUTEKIN, V. V.

Flexural vibrations of an elastic disc loaded in the center.
Akust. zhur. 6 no.3:388-391 '60. (MIRA 13:9)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound waves)

TARASOV, L.A.; TYUTEKIN, V.V.

Method of measuring the moduli of rigidity and compression of rubber subjected to small deformations. Kauch.i rez. 19 no.9:38-41 S '60. (MIRA 13:10)

1. Akusticheskiy institut AN SSSR.
(Rubber--Testing)

VOVK, A.Ya.; TYUTEKIN, V.V.

"Superviscous" longitudinal waves in elastic media. Akust.zhur. 7 no.2:256-257 '61. (MIRA 14:7)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound waves) (Elastic solids)

TYUTEKIN, V. V.

"Propagation of fleuxural waves in unhomogeneous plates"

report submitted for the 4th Intl. Congress of Acoustics, Copenhagen, Denmark, 21-28 Aug 1962.

Acoustical Institute of the Acad. of Sci. USSR, Moscow, USSR.

Reflection and refraction of ...

amplitudes R and S of the reflected waves and P and Q of the refracted waves the following equations were obtained:

$$R + S - P - Q = -1, \tag{8}$$

$$\cos\theta R + i\sqrt{1+\sin^2\theta}S + \xi\cos\theta_1 P + i\xi\sqrt{1+\sin^2\theta_1}Q = \cos\theta, \tag{9}$$

$$-\sigma^- R + \sigma^+ S + \psi\xi^2(\sigma_1^- P - \sigma_1^+ Q) = \sigma^-, \tag{10}$$

$$i\cos\theta\sigma^+ R + \sqrt{1+\sin^2\theta}\,\sigma^- S + \psi\xi^2(i\cos\theta_1\sigma_1^+ P + \sqrt{1+\sin^2\theta_1}\sigma_1^- Q) = i\cos\theta\sigma^+. \tag{11}$$

$\xi = k_1/k$, $\psi = D_1/D$, $D = Eh^3/12(1-\nu^2)$, $\sigma_1^{\pm} = 1 \pm \sin^2\theta_1(1-\nu_1)$. With the aid of this system the reflection and refraction coefficients of any incident bending waves with any plate parameters may be calculated. Special cases were examined: (1) $\theta = 0$, parameters of the plates differ; (2) angular dependence of the reflection coefficient with equal wave numbers of both plates. There are 4 figures.

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Reflection and refraction of ... S/046/62/008/002/013/016
B104/B108

ASSOCIATION: Akusticheskiy institut AN SSSR (Acoustics Institute AS USSR)
Moscow

SUBMITTED: May 15, 1961

Card 3/3

TYUTEKIN, V.V.; SHKVARNIKOV, A.P.

Propag tion f flexural waves along an inhomogeneous plate with smoothly varying parameters. Akust.zhur. 10 no.4:473-475 '64. (MIRA 18:2)

1. Akusticheskiy institut AN SSSR, Moskva.

TYUTEN'KOV, S.K.

Chironomid larvae and their role in the benthos of the Syr Darya flood plain lakes. Izv.AN Kazakh.SSR.Ser.zool. no.9:96-102 '50. (MLRA 9:5)

(Syr Darya Valley--Larvae)

TYUTEN'KOV, S.K.

Feeding habits of the sturgeon Acipenser nudiventris Lov. in the Ili River. Izv.AN Kaz.SSR no.125:86-91 '53. (MLRA 6:12)
(Ili River--Sturgeons) (Sturgeons--Ili River)

TYUTEN'KOV, S.K.

Materials on the hydrobiology of Lake Chelkar. Izv.AN Kaz.SSR no.125:115-123 '53. (MLRA 6:12)
(Chelkar, Lake--Fresh-water biology)
(Fresh-water biology--Chelkar, Lake)

TYUTEN'KOV, S.K.

Hydrobiological description of Lake Kurgal'dzhin. Sbor.rab.po ikht. i gidrobiol. no.1:124-154 '56. (MLRA 10:4)
(Kurgal'dzhin, Lake--Fresh-water biology)

TYUTEN'KOV, S.K.

Nutrition and food relations of fishes in Lake Kurgal'dzhin, Sbor. rab. po ikht. i gidrobiol. no.1:155-171 '56. (MLRA 10:4)
(Kurgal'dzhin, Lake--Fishes--Food)

TYUTEN'KOV, S.K.

Benthos of lake Balkhash and its importance as food of fishes. Sbor. rab. po ikht. i gidrobiol. no.2:45-79 '59. (MIRA 12:11)
(Balkhash, Lake--Fishes--Food)

TYUTEN'KOV, S.K.

Benthos of the Kamysh-Samarskiye Lakes. Sbor.rab. po ikht. i gidrobiol. no.2:145-151 '59. (MIRA 12:11)
(Kamysh-Samarskiye Lakes--Fresh-water fauna)

TYUTEN'KOV, S.K., kand.biol.nauk

Ponto-Caspian mysids in Balkhash. Vest. AN Kazakh. SSR 17 no.2: 62-66 F '61. (MIRA 14:2)
(Balkhash, Lake--Mysidacea)

TYUTEN'KOVA, N.L.

Quantitative distribution of yeast organisms in the water and soils of Ust'-Kamenogorsk Reservoir. Trudy Inst. mikrobiol. i virus. AM Kazakh. SSR 7:168-176 '63 (MIRA 16:12)

TYUTEN'KOVA, N.L.

Dextrinase activity of the yeast Schizosaccharomyces pombe cultured on metabolism products of the fungus Aspergillus oryzae. Trudy Inst. mikrobiol. i virus. AN Kazakh SSR 2:181-188 '58 (MIRA 11:10)
(ASPERGILLUS ORYZAE)
(YEAST)
(DEXTRINASE)

NOVOZHILOVA, M.I.; TYUTEN'KOVA, N.L.

Accumulation of the biomass of feed yeast on hydrolysates of wild reeds. Trudy Inst. mikrobiol. i virus. AN Kazakh. SSR 3:81-85 '59.
(MIRA 13:2)

(YEAST) (REED (BOTANY))